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Sidney Circle
Subdivision

Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601



A. C. Knight, M.D., F.C.C.P.
Director

PLEASE RETURN
September 30, 1980

Governor's Office, Helena, MT 59601
Richland County Health Department, 221 Fifth St. S.W., Sidney, MT 59270
Richland County Planning Board, P.O. Box 1011, Sidney, MT 59270
Montana State Library, Helena, MT 59601
Environmental Quality Council, Helena, MT 59601
Department of Community Affairs, Helena, MT 59601
Department of Fish, Wildlife and Parks, Helena, MT 59601
Department of Highways, Helena, MT 59601
Department of Natural Resources and Conservation, Helena, MT 59601
Montana Bureau of Mines & Geology, c/o Montana Tech, W. Park St, Butte, MT 59701
Fire Marshal Bureau, Department of Justice, 1409 Helena Ave, Helena, MT 59601
Soil Conservation Service, Federal Building, Bozeman, MT 59715
Office of Interstate Landsales Registration, Attn: Carlton Goodwin, Title Bldg.
Room 324, 909 - 17th St., Denver, CO 80202
Richland County Commissioners, Courthouse, Sidney, MT 59270
Richland County Sheriff, 110 Second Ave. N.W., Sidney, MT 59270
Information Unit, Department of Health & Env. Sciences, Helena, MT 59601
Environmental Information Center, Box 12, Helena, MT 59601
Montana Historical Society, 225 N. Roberts, Helena, MT 59601
LaMoure Besse, 10795 Oral Zumwalt Way, Missoula, MT 59801
Robert J. Shelton, 524 Strand, Missoula, MT 59801
Anthro Research, Inc., P.O. Box 1218, Livingston, MT 59047
City of Sidney, 115 Second St. S.E., Sidney, MT 59270

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930 E Lyndale Ave.
Helena, Montana 59601

RE: Sidney Circle Subdivision
Richland County

Ladies and Gentlemen:

The enclosed preliminary environmental review has been prepared for Sidney Circle Subdivision in Richland County, and is submitted for your consideration. Questions and comments will be accepted until October 14, 1980. One extension of time not to exceed seven days will be granted upon request if there is sufficient reason for the request. All comments should be sent to the undersigned.

Sincerely,

Edward W. Casne, P.E., Chief
Subdivision Bureau
Environmental Sciences Division

jg

Enc.

EEO/AFFIRMATIVE ACTION AGENCY



DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
Cogswell Building, Helena, Montana 59601
(406)449-3946

PRELIMINARY ENVIRONMENTAL REVIEW

Division/Bureau Environmental Sciences Division/Subdivision Bureau

Project or Application Sidney Circle Subdivision

Description of Project 246 single-family residential lots and from 35 to 55 townhouse units are proposed for approximately 130 acres of land currently used for grazing purposes. Construction will consist of three phases. Phase I is designated for completion of 35 single-family residences. Phase II is to consist of 60 single-family dwellings and a maximum of 55 townhouse or other multi-family units. Phase III will be comprised of 151 single-family residences. Common area will be provided adjacent to the multi-family units and dedicated as parkland. Water will be supplied from a central public system fed by wells. A public utility is to be formed by the developer to operate the water system. Sewage disposal will be by means of individual septic tanks and drainfields for Phase I (35 lots). Sewage disposal for Phases II and III will consist of a central public septic system and drainfield. The public sewage disposal will be operated by the homeowner's association. Minimum lot size ranges from 20,000 square feet for Phase I to 5,000 square feet for Phases II and III. Maximum lot size will be 35,000 square feet.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
1. Terrestrial & aquatic life and habitats			X			*
2. Water quality, quantity and distribution			X			*
3. Geology & soil quality, stability and moisture			X			*
4. Vegetation cover, quantity and quality			X			*
5. Aesthetics			X			*
6. Air quality			X			*
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy			X			*
9. Historical and archaeological sites				X		*

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
1. Social structures and mores			X			
2. Cultural uniqueness and diversity				X		
3. Local and state tax base & tax revenue		X				*
4. Agricultural or industrial production			X			*
5. Human health				X		
6. Quantity and distribution of community and personal income			X			*
7. Access to and quality of recreational and wilderness activities				X		*
8. Quantity and distribution of employment			X			
9. Distribution and density of population and housing			X			*
10. Demands for government services		X				*
11. Industrial & commercial activity			X			
12. Demands for energy			X			*
13. Locally adopted environmental plans & goals			X			*
14. Transportation networks & traffic flows		X				*

Other groups or agencies contacted or which may have overlapping jurisdiction Richland County Planning Board; Richland County Health Department; Water Quality Bureau, Dept. of Health & Environmental Sciences

Individuals or groups contributing to this PER. Dept. of Fish, Wildlife and Parks, Dept. of Highways, Richland County Planning Board; Anthro Research, Robert J. Shelton & Assoc and LaMoure Besse

Recommendation concerning preparation of EIS Recommend against preparation of an Environmental Impact Statement (EIS).

PER Prepared by: James C. McCauley

Date: September 19, 1980

PHYSICAL ENVIRONMENT

1. The impact of stormwater runoff from the proposed subdivision on aquatic life should be insignificant. A storm drainage plan prepared by Robert J. Shelton and Associates indicates that provisions will be made to handle the 100-year stormwater flow within subdivision boundaries. Although it may be necessary to install an additional 36-inch culvert under the county road between Schilling Homesites First Plot and Goss Park, downstream structures appear adequate to accomodate peak flows. Due to the distance (approximately five miles) and gentle slopes of the existing grass-lined drainageway, very little sediment or other contaminants should reach the Yellowstone River. During very severe storms, some sediment and lawn fertilizer from the residential lots may reach state waters but this impact should be minimal compared to sources of agricultural non-point pollution nearby. On-site storm drainage plans incorporate the use of stormwater sumps or dry wells and natural drainageways to lessen the impact from initial runoff during a storm.

According to an environmental assessment prepared by Robert J. Shelton and Associates, the platting of this property will have little impact on wildlife. Pheasants and mule deer are occasionally seen in the area along with other small mammals and birds. Common area should provide for the protection of small mammals and birds. The Montana Department of Fish and Game commented that this development is a natural extension of the Sidney community. Wildlife values in this area are low due to existing development nearby. The Department of Fish and Game did not oppose this project.

2. As mentioned above, stormwater runoff should not significantly impact aquatic life or water resources. Adequate measures will be taken to control and route storm drainage by natural and artificial methods.

Individual septic tanks and drainfields should have little impact in the designated Phase I area. Although plans call for the improvement of 35 lots within a 22 acre area, both Soil Conservation Service data and private soil investigation show this area to be suitable for the subsurface disposal of sewage. Soil is confirmed to be of a silty clay loam classification which should provide for moderate percolation and excellent filtering and biological breakdown of sewage prior to contact with groundwater. Preliminary indications were that groundwater levels exceed 20 feet below the surface. Test pits were excavated to verify this. As long as drainfields are adequately sized, no problems should arise from subsurface disposal of sewage.

The large public drainfield to serve Phases II and III is located in an area of fine sandy loam soils. Currently, additional tests are being conducted to determine the suitability of this site. Adequate precautions will be taken to follow the most recent design criteria available in sizing and construction of this facility. Test wells will be placed adjacent to the

drainfield site for the purpose of monitoring groundwater quality before and after the installation of this system.

All septic systems are to be located on dryland areas far away from irrigation ditches and natural drainageways.

A central water supply and distribution system is planned to accommodate the entire subdivision. Phase I water demand will be satisfied by deep wells. Test wells have been drilled on-site which indicate an adequate quantity (90-100 gallons per minute) of water at a depth of 110 to 120 feet. Quality of this water also appears adequate as shown in chemical analysis taken from an adjacent well. Further information as to drawdown and depletion of the aquifer and this subdivision's effect on adjacent development will be required by the Water Quality Bureau of the Department of Health and Environmental Sciences prior to their approval of the new public water supply. Further demand created by the construction of Phases II and III will necessitate the addition of an 81,000 gallon storage tank. Currently, plans are underway to form a public utility to operate and maintain the water supply and distribution system. Ultimate development of the Sidney Circle wells and storage system will provide for fire flow according to the design presented by Robert J. Shelton and Associates.

3. As noted in the environmental assessment prepared for this project, the area is situated near the western edge of the Yellowstone River Valley on shallow alluvial deposits with slopes less than 2 percent. Soils in the area of development consist mainly of Cherry silty clay loam and Trembles fine sandy loam. Cherry series soils are typically susceptible to low shear strength, moderate shrink-swell potential and medium compressibility. Trembles series soils have medium shear strength and compressibility and low shrink-swell potential. Problems should not be encountered as long as caution is exercised with respect to footings, foundation and graded slopes.

4. In a report prepared by LaMoure Besse, the proposed site was described as prime farmland due to its ability to be irrigated. The area was previously cultivated and is currently used for grazing. Russian Rye is the predominant grass. There is currently residential development to the North and East of the site, so conflict between agricultural interests and residential development should be minor.

5. No area of significant natural beauty will be altered by this development. A well-planned community with parks and paved streets should be an asset to the natural extension of Sidney's boundaries.

6. Dust levels will rise significantly during the construction of roads, utilities and homes. Neighboring residents will be affected during this construction period. As homes and roads are completed and lawns planted, particulate levels will drop.

8. The most significant impact of this subdivision will be on water resources. Since a shallow aquifer is being tapped as the source of water for domestic and irrigation purposes, the potential effect on the surrounding areas must be analyzed more thoroughly. Any new public water supply is reviewed by the Water Quality Bureau of the Department of Health and Environmental Sciences. This matter will be addressed prior to approval.

9. The conclusions of a cultural resource investigation conducted by Anthro Research did not reveal any evidence of existing cultural resources. The possibility for buried cultural resources is slight due to the geomorphic character of the area.

HUMAN ENVIRONMENT

3. Based on information obtained from the environmental assessment prepared by Robert J. Shelton and Associates, the current taxes on land designated as Phases I and II is approximately \$15.00. The remainder of the undeveloped area should generate approximately \$30.00 in taxes. Information obtained from the Richland County Appraisal Office approximates a \$25.00 tax on a developed 10,000 square foot lot. Upon total completion of the development, assuming \$50,000 homes as an average, the subdivision should contribute \$97,223 to the county treasury.

4. The area is currently used for dry land grazing and consists of grasses. Native and cultivated grasses will be removed as construction proceeds and replaced by domestic lawns, trees and shrubbery. Hopefully, as houses are occupied, ground cover will be intensified thus buffering storm water runoff. There are no known critical plant communities in this area.

6. The growth of suburban areas usually results in a shift of community and personal income from urban centers to outlying areas. Therefore, a decline in urban tax base and business decay is compensated by suburban malls and new business.

7. There is no direct access to public lands through the subdivision.

9. The proposed subdivision appears to be in compliance with the comprehensive plan for the Sidney-Richland County area.

10. The development of a subdivision this size will have significant impact on the community services of Sidney and Richland county. How severe this impact is depends on how rapidly development proceeds. The increase in tax base should help to mitigate the increased demand for services.

Responsibility will increase for both the County Sheriff's office and rural Fire Chief. Additional personnel will probably be required as development proceeds. Fire protection capabilities will be enhanced as Phase II development necessitates the addition of a water storage tank. The developers intend to covenant that each homeowner contribute \$10.00 per year to the fire department. Sidney Circle's proximity to other residential development and to the City of Sidney helps to minimize these impacts especially in length of response time in emergency situations.

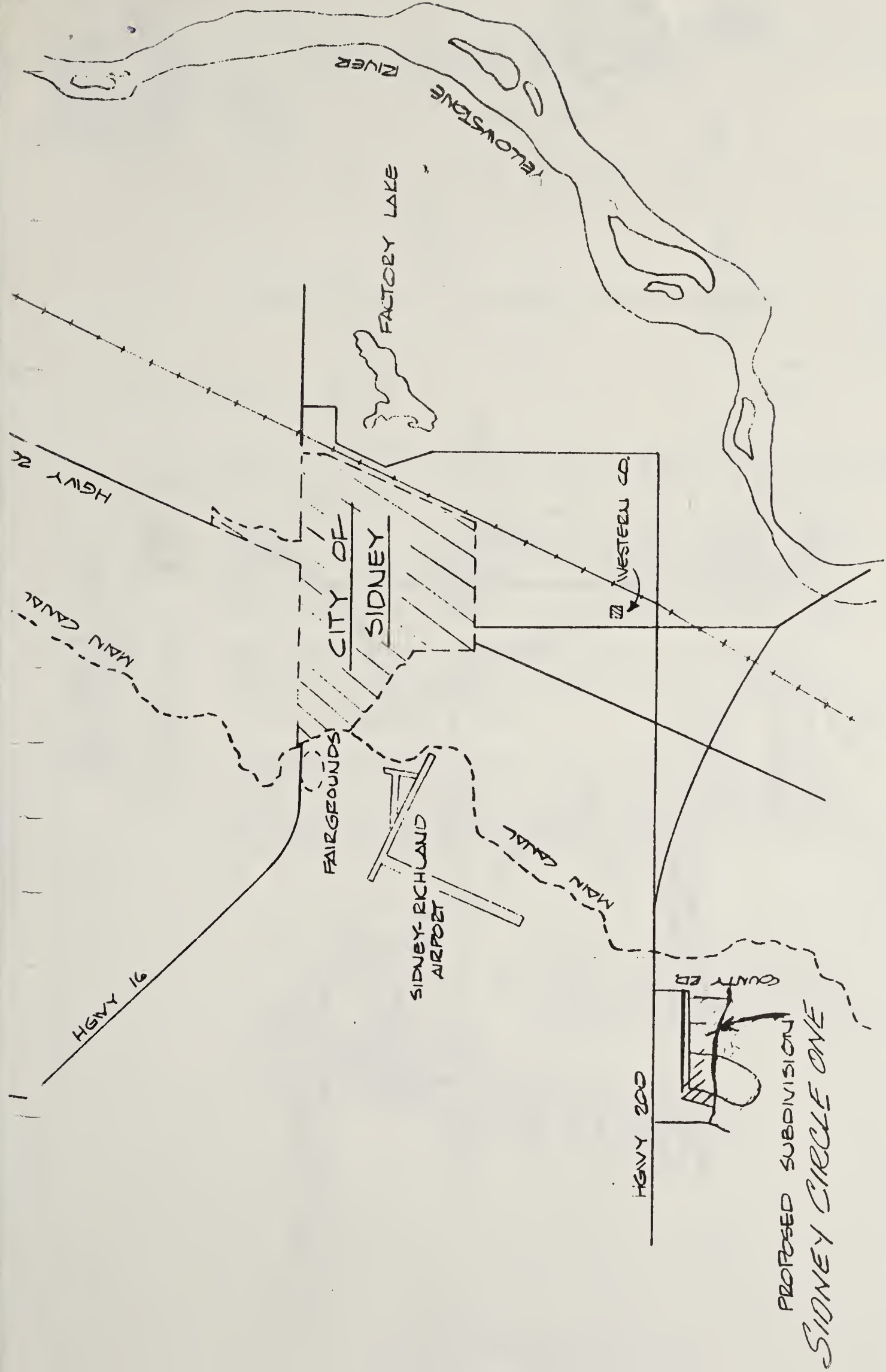
In the environmental assessment prepared for the local planning board, it was estimated that 70 elementary students and 30 high school students would be added when Phases I and II are fully occupied. The addition of Phase III would probably double this estimate. Currently, school bus service is provided to the adjacent residential community. The Sidney Superintendent of Schools has expressed concern for providing additional bus service at the expense of the entire school district. Since the school district is not legally responsible for busing children that reside within three miles of the city limits, present plans call for elimination of bus service to this area.

According to a report prepared by LaMoure Besse, the City of Sidney has expressed concern about the impact that this subdivision will have on city services. Lying outside the current city limits, this subdivision will not contribute to the city tax base. Since residents will be using city recreational areas, the library and sanitary landfill, city officials have a right to concern. Some relief is offered by subdivision residents disposal of income to local businesses which in turn support these services through their payment of taxes. However, developers propose to draft a covenant which would be acceptable to the County Commissioners which would not allow Sidney Circle owners to protest City sponsored annexation.

12. Electrical service will be provided by Lower Yellowstone Rural Electric Corporation. Montana Dakota Company will extend gas lines to the area and serve sites based upon normal developer contracts. Some impact on gasoline consumption is felt upon development of any suburban area. At present, to the best of our knowledge, no public transportation system is available or planned.

13. Due to rapid development of the Sidney area stemming from oil and gas deposits, affordable housing is in demand. The subdivision is in compliance with the Sidney-Richland County comprehensive plan and has been conditionally approved by the planning board and county commissioners.

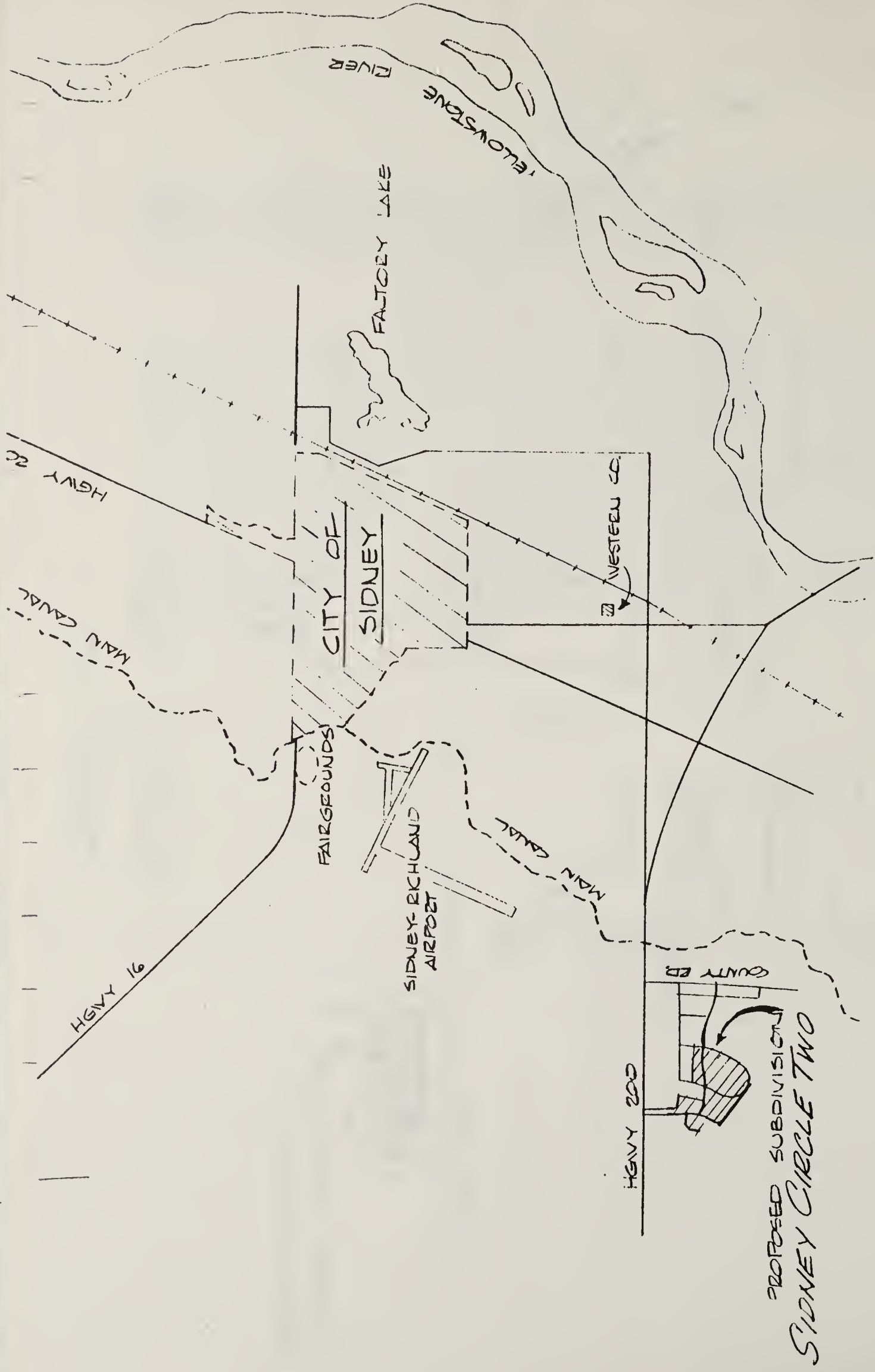
14. This subdivision's impact on local highways is significant in that traffic generating potentials are greater than the present traffic count on Highway 200. At present Highway 200 carries approximately 563 ADT (average daily traffic). When Sidney Circle Phases I and 2 are combined with other area subdivisions, the predicted ADT rises to a maximum of 2,172. This estimate made by the Montana State Department of Highways did not include Phase III of Sidney Circle thus omitting the additional ADT for 151 new homes. The State Department of Highways has suggested left turn bays and/or acceleration/deceleration lanes to mitigate impact as traffic volumes increase. It is desirable to minimize access to Highway 200 and the number of conflict points. Since Highway 200 has been recently improved in the vicinity of the proposed subdivision, the traffic carrying capacity is fairly high. Studies are presently underway to upgrade junctions and improve the safety record of roadways leading to Sidney Circle.



VICINITY MAP

OF

SIDNEY, MT.



VICINITY MAP
OF
SIDNEY, MT.



Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601

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A. C. Knight, M.D., F.C.C.P.
Director

November 7, 1980

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ANSWERS TO COMMENTS ON SIDNEY CIRCLE SUBDIVISION PER

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Ladies and Gentlemen:

The following revisions should be made to the preliminary environmental review prepared for Sidney Circle Subdivision in Richland County in order to clarify certain statements:

- 1) Sentence number 5 of the "Description of Project" should be modified to state "Phase III, although not yet approved by the Richland County Planning Board and Richland County Commissioners, is proposed for 151 single-family residences."
- 2) Item 9 under "Human Environment" should be modified to state "Phases I and II of the proposed subdivision appear to be in compliance with the comprehensive plan for the Sidney-Richland County area."
- 3) The second sentence of Item 13 under "Human Environment" should be modified to state "Phases I and II of the subdivision are in compliance with the Sidney-Richland County comprehensive plan and have been conditionally approved by the planning board and county commissioners."

Sincerely,

Edward W. Casne, P.E., Chief
Subdivision Bureau
Environmental Sciences Division

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